

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1 and 2 (cancelled).

3. (currently amended) The camera system according to claim 1, further comprising a photometric unit which measure brightness of an object; A camera system comprising a lens apparatus with an image-taking optical system including a focus lens unit and a camera on which the lens apparatus is mountable, the camera system comprising:
- a focus detection unit which detects a focusing state of the image-taking optical system;
- a controller which controls the driving speed of the focus lens unit and controls the focus detection unit to perform a focus detection operation at least once while the focus lens unit is moved; and
- a photometric unit which measures the brightness of an object;
- wherein the controller drives the focus lens unit at a first speed and a second speed lower than the first speed while the focus lens unit is moved toward an in-focus position,
- the focus detection unit performs a final focus detection operation out of at least one focus detection operation while the focus lens unit is driven at the second speed,
- before the focus lens unit reaches the in-focus position, and

the controller determines the second speed based on the photometric result by the photometric unit and information on an amount of movement of a focal point of the image-taking optical system with respect to an amount of movement of the focus lens unit.
wherein the controller determines the driving speed of the focus lens at the time of the final focus detection operation based on the photometric result by the photometric unit and information on the amount of movement of a focal point with respect to a unit amount of movement of the focus lens unit.

Claims 4-6 (cancelled).

7. (currently amended) The camera according to claim 5, A camera on which a lens apparatus is mountable, the lens apparatus comprising an image-taking optical system which includes a focus lens unit, the camera comprising:
- a communication unit which communicates with the lens apparatus;
- a focus detection unit which detects a focusing state of the image-taking system;
- a controller which controls the driving speed of the focus lens unit by communications with the lens apparatus through the communication unit and controls the focus detection unit to perform a focus detection operation at least once while the focus lens unit is moved; and
- a photometric unit which measures brightness of an object;
- wherein the controller drives the focus lens unit at a first speed and a second speed lower than the first speed while the focus lens unit is moved toward an in-focus position,

the focus detection unit performs a final focus detection operation out of at least one focus detection operation while the focus lens unit is driven at the second speed, before the focus lens unit reaches the in-focus position, and

the controller determines the second speed based on the photometric result by the photometric unit and information on an amount of movement of a focal point of the image-taking optical system with respect to an amount of movement of the focus lens unit, further comprising a photometric unit which measures brightness of an object, wherein the controller determines the driving speed of the focus lens unit at the time of the final focus detection operation based on the photometric result obtained from the photometric unit and information on the amount of movement of focal point with respect to the unit amount of movement of the focus lens unit obtained from the lens apparatus through communications.

Claims 8-10 (cancelled).

11. (currently amended) The camera according to claim 10, further comprising
A camera comprising:

an image-taking optical system including a focus lens unit;
a focus detection unit which detects a focusing state of the image-taking optical system;
a controller which controls the driving speed of the focus lens unit and controls the focus detection unit to perform a focus detection operation at least once while the focus lens unit is moved; and

a photometric unit which measures the brightness of an object;
wherein the controller drives the focus lens unit at a first speed and a second
speed lower than the first speed while the focus lens unit is moved toward an in-focus
position;
the focus lens detection unit performs a final focus detection operation out of at
least one focus detection operation while the focus lens unit is driven at the second speed,
before the focus lens unit reaches the in-focus position, and
the controller determines the second speed based on the photometric result by the
photometric unit and information on an amount of movement of a focal point of the
image-taking optical system with respect to an amount of movement of the focus lens
unit, a photometric unit which measures brightness of an object; and
a memory which stores information on the amount of movement of a focal point
with respect to a unit amount of movement of the focus lens unit,
wherein the controller determines the driving speed of the focus lens unit at the
time of the final focus detection operation based on the information on the amount of
movement of the focal point stored in the memory and the photometric result obtained
from the photometric unit.

Claims 12-14 (cancelled).

15. (currently amended) The lens apparatus according to claim 13, A lens apparatus which is
mountable to a camera, comprising:
an image-taking optical system including a focus lens unit;

a controller which controls the driving speed of the focus lens unit; and
a memory which stores information on an amount of movement of a focal point of
the image-taking optical system with respect to an amount of movement of the focus lens
unit,

wherein the camera controls a focus detection unit to detect a focusing state of the
image-taking optical system at least once while the focus lens is moved,

the controller drives the focus lens unit at a first speed and a second speed lower
than the first speed while the focus lens unit is moved toward an in-focus position,
the focus detection unit performs a final focus detection operation out of at least
one focus detection operation while the focus lens unit is driven at the second speed,
before the focus lens unit reaches the in-focus position, and

the controller drives the focus lens unit based on the second speed which the
camera and the lens apparatus determine based on information which is stored in the
memory and the photometric result of brightness of an object further comprising a
memory which stores information of an amount of movement of a focal point with
respect to a unit amount of movement of the focus lens unit,

wherein the controller controls the driving of the focus lens unit according to the
driving speed of the focus lens unit at the time of final focus detection operation
determined by the camera or the lens apparatus based on the information of the amount of
movement of the focal point stored in the memory and the photometric result of the
object obtained by the camera.

16. (cancelled)